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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

SDMS Doc ID 2003564

copy sent to J. Goodrich 5/29/87

1st set of QA'd data for Phase I 2nd set due by 7/1

MAY 27 1987

MEMORANDUM

SUBJECT: Review of Analytical Data

FROM: Kent M. Kitchingman, Chief
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO: Tom Mix
Enforcement Response Section,
Superfund Programs Branch, TWMD (T-4-A)

Attached are comments resulting from Region 9 review of the following analytical data:

SITE: Ordot Landfill Guam
EPA SITE ID NO.: GUD 980637649
CASE/SAS NO.: 6926

LABORATORY: California Analytical Labs
ANALYSIS: Metals, CN-

SAMPLE NO.: MY0195; MY2095-2100, MY0789-0791, MY0187
(13 Waters)

COLLECTION DATE: 3/12 & 13/87

REVIEWER: Karen Bankert KEB
TELEPHONE NUMBER: 415/974-8856

If there are any questions regarding this information, please contact the reviewer.

Attachment

cc: Duane Geuder, QA Officer, EPA-HQ (WH-548A)
Data Audit Team (LEMSCO), EMSL-LV

DATA EVAUATION REPORT FOR

CASE NO.: 6926

SITE: ORDOT LANDFILL-GUAM

by

QUALITY ASSURANCE MANAGEMENT SECTION

ENVIRONMENTAL SERVICES BRANCH

U.S. ENVIRONMENTAL PROTECTION AGENCY
215 Fremont Street
San Francisco, California 94105

MAY 2 7 1987

Date

Karen Bankert

Karen Bankert
Reviewer

FTS Tel. NO. 454-8856
Commercial Tel. 415/974-8856

David W. Kinghorn

Concurrence

FTS Tel. NO. 454-8149
Commercial Tel. 974-8149

Case No. 6926
Site: Ordot Landfill, Guam
Lab: Cal Analytical/ENSECO
Date of this Report: 5/19/87
Reviewer: Karen Bankert

Metals/Cyanide
13 Low Waters

I. Introduction:

A. Thirteen (13) low water samples were submitted to the laboratory on March 16 & 17, 1987 for Metals and Cyanide analyses.

B. The field duplicates are MY0190 and MY0191; MY0192 and MY2096; and MY0790 and MY0791. No field blanks were submitted.

C. The analytical results with qualifications are listed in Table 1. This report is prepared in accordance with EPA document "Laboratory Data Validation-Functional Guidelines for Evaluating Inorganic Analyses, November 1985.

II. Validity:

A. The following results in Table 1 are considered to be estimates due to accuracy problems (See Section III C.)

° Mercury in sample MY2100

B. The following results in Table 1 are considered to be estimates and useable for limited purposes due to problems with precision (See Section III D,E,F.)

° Iron for samples MY0190, MY0191, MY0192, MY2096

° Zinc for samples MY0192 and MY2096

° Copper for samples MY0790 and MY0791

C. All other results are considered valid for all purposes.

III. General Comments

A. The matrix spike recovery for silver was low (73%). However, the reviewer considered the result "not detected" for silver to be valid for all samples.

B. The matrix spike recovery for selenium was low (69%). However, the reviewer considered the result "not detected" for selenium to be valid for all samples.

C. The matrix spikes for mercury were 62% and 178%. Because of this, the mercury value for MY2100 is considered to be an estimate(J). However, the reviewer considered the results of "not detected" for mercury in all other samples to be valid.

D. An acceptable analytical result above the instrument dectection limit but below the "Contract Required Quantitation Limit" (CRQL) is considered to be qualitatively acceptable but quantitatively unreliable due to uncertainty in analytical precision. In this case the result is marked with brackets.

E. The results for iron in samples MY0192 and MY2096 are considered estimates and useable for limited purposes. These samples are field duplicates with an RPD of 62%.

F. The results for copper in samples MY0192 and MY2096 are considered estimates and usable for limited purposes. These samples are field duplicates with a RPD of 62%.

G. The cyanide result in sample MY0192 has an elevated detection limit due to the sample volume used in the analysis.

TABLE 1.

Case No. 6926
Site Ordot Landfill Guam
Lab CAL/ENSECO
Type of Analysis Metals, CN - D Water (LOW)
Units of Concentration µg/L
Date Samples Collected 3/12 and 3/13/87
Date Samples Rec'd at Lab 3/16 and 3/17/87
Date Data Package Rec'd at Region 9 4/15/87
Date of this Report 5-19-87
Reviewer Karen Bonkoski

MAXIMUM HOLDING TIMES, ORGANICS	Contract	Actual
Volatile Organics, Water	7 days	___ days
Volatile Organics, Soil	10 days	___ days
ABN Extraction, Water	5 days	___ days
ABN Extraction, Soil	10 days	___ days
ABN Analysis	40 days	___ days
Pesticide Extraction, Water	5 days	___ days
Pesticide Extraction, Soil	10 days	___ days
Pesticide Analysis	40 days	___ days

MAXIMUM HOLDING TIMES, INORGANICS	Contract	Actual
Cyanide	14 days	1 days
Mercury	30 days	5 days
Other Metals	6 mos.	1 days

VALIDITY OF DATA
No flag is used when value is considered valid for all purposes.
R [Rejected] - Value is considered invalid for all purposes.
J [Estimated] - Value is considered usable for limited purposes.

Sample #	Aluminum Result	Validity	Antimony Result	Validity	Arsenic Result	Validity	Barium Result	Validity	Beryllium Result	Validity	Cadmium Result	Validity	Calcium Result	Validity	Chromium Result	Validity	Cobalt Result	Validity	Copper Result	Validity	Iron Result	Validity	Lead Result	Validity	Magnesium Result	Validity
MY0190 (01)	[41]		20U		10U		[6]		0.2U		4.3U		117900		3.7U		6.8U		[6]		[75]		5.0U		[4151]	
MY0191 (01)	[50]		20U		10U		[6]		0.2U		4.3U		116700		3.7U		6.8U		5.9U		[38]		5.0U		[4102]	
MY0192 (02)	[70]		20U		10U		[4]		0.2U		4.3U		42580		3.7U		6.8U		5.9U		118	J	5.0U		9166	
MY2096 (02)	[75]		20U		10U		[4]		0.2U		4.3U		42720		3.7U		6.8U		5.9U		223	J	5.0U		9210	
MY2095	[80]		20U		10U		[5]		0.2U		4.3U		42150		3.7U		6.8U		5.9U		106		5.0U		8745	
MY2097	[77]		20U		10U		[9]		0.2U		4.3U		53930		3.7U		6.8U		5.9U		124		5.0U		7491	
MY2098	937		20U		10U		[190]		0.2U		4.3U		41610		3.7U		[15]		[6]		631		5.0U		31210	
MY2099	466		20U		10U		[54]		0.2U		4.3U		66200		3.7U		6.8U		[10]		639		5.0U		54290	
MY0189	3583		20U		10U		307		0.2U		4.3U		85870		11		[13]		31		39260		18.0		60290	
MY0190 (03)	831		20U		10U		[15]		0.2U		4.3U		85060		3.7U		6.8U		34	J	895		5.0U		59130	
MY0741 (03)	876		20U		10U		[11]		0.2U		4.3U		88870		3.7U		6.8U		[18]		1014		5.9		61980	
MY2100	[45]		20U		10U		[5]		0.2U		4.3U		113800		3.7U		6.8U		[10]		[65]		5.0U		[3215]	
MY0187	[50]		20U		10U		[13]		0.2U		4.3U		103700		3.7U		6.8U		5.9U		243		5.3		23580	
Blank	31U		20U		2.1U		0.9U		0.2U		4.3U		24U		3.7U		6.8U		5.9U		9.2U		2.0U		40U	
IDL	31		20		2.1		0.9		0.2		4.3		24		3.7		6.8		5.9		9.2		2.0		40	
CRDL	200		60		10		200		5		5		5000		10		50		25		100		5		5000	

EPA FORM 900

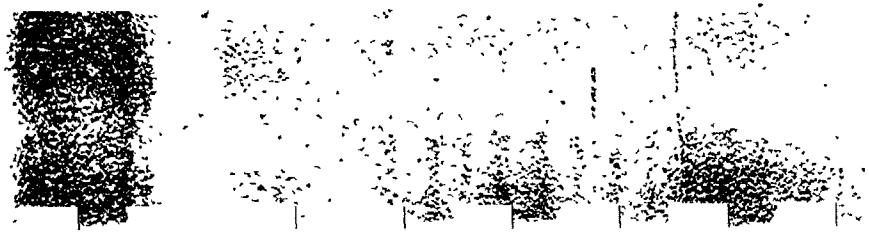

TABLE 1.

Case No. 6926
Site Ordot Landfill Guam
Lab CAL/ENSECO
Type of Analysis Metals, CN^-, $\%H_2O$ LOW
Units of Concentration µg/L
Date Samples Collected 3/12 and 3/13/87
Date Samples Rec'd at Lab 3/16 and 3/17/87
Date Data Package Rec'd at Region 9 4/15/87
Date of this Report 5-19-87
Reviewer Karen Bankert

MAXIMUM HOLDING TIMES, ORGANICS	Contract	Actual
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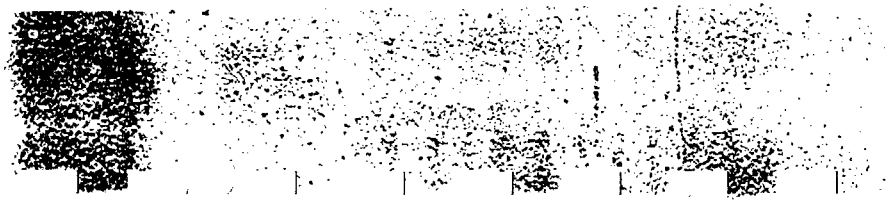
ABN Analysis	40 days	___ days
Pesticide Extraction, Water	5 days	___ days
Pesticide Extraction, Soil	10 days	___ days
Pesticide Analysis	40 days	___ days

MAXIMUM HOLDING TIMES, INORGANICS	Contract	Actual
Cyanide	14 days	7 days
Mercury	30 days	6 days
Other Metals	6 mos.	7 days

VALIDITY OF DATA
No flag is used when value is considered valid for all purposes.
R [Rejected] - Value is considered invalid for all purposes.
J [Estimated] - Value is considered usable for limited purposes.

Sample #	Manganese Result	Validity	Mercury Result	Validity	Nickel Result	Validity	Potassium Result	Validity	Selenium Result	Validity	Silver Result	Validity	Sodium Result	Validity	Thallium Result	Validity	Tin Result	Validity	Vanadium Result	Validity	Zinc Result	Validity	Cyanide Result	Validity
MY0190 (D1)	[1]		0.2U		23U		948U		5.0U		5.1U		11110		10U		17U		3.1U		44		10U	
MY0191 (D1)	0.6U		0.2U		23U		948U		5.0U		5.1U		11040		10U		17U		3.1U		42		10U	
MY0192 (D2)	[4]		0.2U		23U		948U		5.0U		5.1U		19040		10U		17U		[3.9]		[10]		20U	
MY2096 (D2)	[5]		0.2U		23U		948U		5.0U		5.1U		19180		10U		17U		[3.6]		[18]		10U	
MY2095	20		0.2U		23U		948U		5.0U		5.1U		17890		10U		17U		[5.4]		[9]		10U	
MY2097	[8]		0.2U		23U		948U		5.0U		5.1U		12880		10U		17U		3.1U		[20]		10U	
MY2098	87		0.2U		[32]		948U		5.0U		5.1U		38850		10U		17U		[3.6]		137		10U	
MY2099	142		0.2U		23U		14740		5.0U		5.1U		126600		10U		17U		3.1U		31		10U	
MY0189	3161		0.2U		23U		22220		25U		5.1U		119800		10U		17U		[12.0]		73		10U	
MY0190 (D3)	92		0.2U		23U		948U		5.0U		5.1U		62230		10U		17U		[6.9]		162		10U	
MY0191 (D3)	91		0.2U		23U		948U		5.0U		5.1U		65710		10U		17U		[6.3]		133		10U	
MY2100	[4]		1.06	J	23U		948U		5.0U		5.1U		8674		10U		17U		3.1U		45		16.0	
MY0187	224		0.2U		23U		15850		5.0U		5.1U		92870		10U		17U		3.1U		[9]		19.0	
[illegible]K	0.6U		0.15U		23U		948U		1.9U		5.1U		20U		2.8U		17U		3.1U		1.3U		6.2U	
IDL	0.6		0.15		23		948		1.9		5.1		20		2.8		17		3.1		1.3		6.2	
RDL	15		0.2		40		5000		5		10		5000		10		40		50		20		10	

EPA FORM 900



FOOTNOTES:

Blank: Highest result among all the lab preparation blanks.

IDL: Instrument Detection Limit

CRDL: Contract Required Detection Limit

(D1): Field Duplicates MYO190 & MYO191

(D2): Field Duplicates MYO192 & MY2096

(D3): Field Duplicates MYO790 & MYO791

U: Parameter analyzed for, but not above the concentration listed.

[ ]: Acceptable result above the IDL, but below the CRQL is accepted qualitatively, but quantitatively unreliable.